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HIGH-SPEED METHODS INCREASE LABOR PRODUCTIVITY -- Petrozavodsk, Leninskoye Znamya, 4 Jun 53

Labor productivity as a whole at a number of plants has increased 8-12 percent as a result of using high-speed cutting methods.

At present, there are more than 40,000 high-speed workers at plants of the Ministry of Machine Building USSR, and 35,000 machine tools at the plants have been converted to high-speed cutting. The level of high-speed cutting on lathes and turret lathes has increased in the past 2-3 years three or four times and on semi-automatic lathes and milling machines two or three times.

The use of hard-alloy tools has contributed considerably to the increase of cutting speeds. In 1950, hard-alloy tools comprised 20.8 percent of the total output of cutting tools, as compared with 5.9 percent in 1948. According to the 1953 plan, the output of hard-alloy tools at plants of the tool industry will exceed the 1950 level by 68 percent.

At present, more than 500 type-sizes of standardized and normalized hard-alloy tools are being produced in large-series and mass production. In addition to this, hundreds of type sizes of various complex and special hard-alloy tools are being manufactured in individual and small-series production.

High-speed grinding should be accomplished on as wide a scale as possible. The abrasives industry has been manufacturing wheels for high-speed grinding since 1951. In 1952 alone it put out approximately 800,000 wheels. The abrasives industry is in a position to satisfy completely the needs of the national economy for this type of product. Labor productivity in converting to high-speed grinding has been increasing, as a rule, by 50-100 percent. -- A. Kostousov, Deputy Minister of Machine Building USSR

DEVELOP TOOL HEAD FOR VORTICAL THREADING -- Moscow, Trud, 3 Jun 53

A new tool head for vortical threading of large parts has been developed at the plant laboratory of the Novo-Kramatorsk Machine Building Plant imeni Stalin. Whereas formerly it took 40 hours to thread a 3-meter screw, only 4 hours are now required for this operation.

USE CERAMIC CUTTERS AT HOIST AND TRANSPORT EQUIPMENT PLANT -- Minsk, Sovetskaya Belorussiya, 27 May 53

New ceramic cutting tools were tested on 25 May at the Leningrad Hoist and Transport Equipment Plant imeni S. M. Kirov. With the use of these cutters, V. P. Gusev, a high-speed lathe operator, machined a huge shaft for a crane in one third the time previously required. The finish was exemplary and the grinding operation was obviated.

The ceramic cutting tools designed by Ya. P. Karagodin and N. N. Yaskov are being widely introduced at the enterprise. A machine tool for grinding the tools, as well as an original attachment for protecting the operator from chips has been developed.

At present, nearly half of the machine tool operators at the plant are using the new tools. As a result, the production cycle for machining crane parts has been cut in half.

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INTRODUCE NEW METHOD OF PLANING WITH WIDE TOOLS -- Kiev, Pravda Ukrainy, 30 May 53

Personnel at the technological laboratory of the Moscow Machine Tool Building Plant imeni Ordzhonikidze have developed and introduced a new method of planing with wide cutting tools. This method has made it possible to shorten the time in finishing operations 10-15 times. The machining accuracy is within .02-.03 millimeter.

NEW ATTACHMENT FOR HIGH-SPEED PLANING WITH INCREASED FEEDS -- Tashkent, Pravda Vostoka, 13 Jun 53

Until recently, high-speed planing with increased feeds had not been possible. I. Gusev and A. Kasheyeva of the Kuybyshev Srednevolzhskiy Machine Tool Plant have been working on this problem since 1951. They finally designed an original attachment which consists of a rotating tool holder fastened securely to the tool slide, and four two-sided cutting tools with hard-alloy blades.

Feed of the tool is accomplished by rotating the attachment. Each tool is indexed the same distance. The tools can plane in either direction, which is particularly important in planing internal contours.

The four-tool holder gives a total feed of 5 millimeters per double stroke. The depth of planing is 12-20 millimeters. The new cutting tool is nearly nine times as light as the old type. In addition, it operates well at maximum speeds with increased feeds.

The new holder is universal. It can be used to machine horizontal surfaces or shoulders, and in finishing operations.

The application of the new attachment has made it possible to increase the cutting speed from 15 meters per minute to 24 and to increase the feed per double stroke fourfold.

DECREASE HANDLING TIME -- Moscow, Vechernyaya Moskva, 13 Jun 53

The Presidium of the Central Committee of the trade union of workers of the electric power station and electrical industry reviewed the new method of high-speed cutting proposed by V. Komarov of the Moscow Plant imeni Vladimir Il'ich.

Komarov, in turning shafts of electric motors, was able to fulfill his norm 600-700 percent. Like Kolesov, Komarov changed the shape of his cutting tool, increased the feed, and brought the spindle speed up to 475 rpm. In turning the journals of the shaft, Komarov increased the depth of cut from 5 to 12 millimeters.

Striving to increased labor productivity by decreasing handling time, Komarov uses a pneumatic lifting device which withdraws into the bed during machine operation. He also uses a fixture which makes it unnecessary to fasten the workpiece. Formerly, it took Komarov 80 minutes to turn a shaft; now it takes him only 11 minutes.

EMULATE KOLESOV'S METHOD -- Moscow, Moskovskaya Pravda, 18 Jun 53

Schools have been created at the Podol'sk Machinery Plant imeni Kalinin for training lathe operators in Kolesov's method of power cutting. Kalshnikov, a lathe operator at the plant, machines a shaft 70 millimeters in diameter

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and 600 millimeters long on a DIP-200 lathe in his demonstrations. The spindle makes 1,000 rpm. The feed is 1.5 millimeters and depth of cut, 4 millimeters. The shaft is machined four times as quickly as formerly.

Kishinev, Sovetskaya Moldaviya, 25 Jun 53

Stakhanovites at the Kishinev Machinery Plant imeni G. I. Kotovskiy are successfully mastering the method of power cutting.

Experiments were conducted on a DIP-200 lathe with the use of cutting tools designed by Kolesov. A bar 400 millimeters long and 30 millimeters in diameter was machined at a spindle speed of 600 rpm. A feed of 2 millimeters per spindle revolution was used, which increased the productivity of the machine tool ten times as compared with the conventional method.

In another experiment, a shaft 1.5 meters long and 75 millimeters in diameter was machined at a spindle speed of 200 rpm, a feed of 3.5 millimeters per spindle revolution, and a depth of cut of 3 millimeters.

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